

workshops and drying sheds are not exempt from the ordinary rules and provisions of the said Metropolitan Buildings Act as to party-walls and external walls, or in any other respect."

Costs to be paid by the applicants.

PROJECTIONS.

Mr. Tufnell, M.P., of 37, Curzon-street, May Fair, desired to make a certain addition to the portion of the said dwelling-house, that is to say, to fix a zinc and glass (all inclosed) green-house or verandah, for which he had the assent of the adjoining tenants on each side; the said green-house being to the centre of the house, and at a distance from the next house.

Mr. Foxhall, district surveyor, objected to allow the projection to be made without the special permission of the referees. The award was, "that inasmuch as the proposed addition is to be built of proper and sufficient fire-proof materials, and inasmuch as it will be removed so far from the adjoining buildings on every side thereof, as not to obstruct the light and air, or be otherwise injurious to the owners or occupiers of such buildings, and inasmuch as such addition is not to project into the street so as to encroach or otherwise to encroach upon the public way, and is not to extend laterally beyond the portico, over which it is proposed to be built, if such addition be made so that the water therefrom shall not drip upon the public way, then the same will not be contrary to the said Act."

Costs to be paid by Mr. Tufnell.

With the greatest respect for the excellent district surveyor, we cannot understand on what ground he thought it necessary to send this case to the referees.

OPERATION OF LOCAL ACTS.

A stone eagle having been lately set up by Messrs. Bailly, of Royal Exchange-buildings, Cornhill, which overhangs the public way a little "beyond the extension of the coping at the top of the house," was objected to by the Commissioners of Pavements. It was formerly over the door of the premises on the adjoining site, and the district surveyor, at the rebuilding, made no objection to its erection. Messrs. Bailly, in applying to the referees on the subject, first set forth "that by the 5th section of the said Act it is enacted, 'That notwithstanding anything contained to the contrary in any Act of Parliament now in force, every such building shall be built, rebuilt, enlarged, or altered in reference to the walls, &c., and to the projections, and to any other parts or appendages of every such building, in the manner and of the materials, and in every other respect, in conformity with the several particulars, rules, and directions which are specified and set forth in the several schedules to this Act annexed.' And then shewed under what clause of Schedule E such a projection might be made.

The referees awarded—"That although by virtue of the provisions of the Metropolitan Buildings Act, cited in the said requisition, certain projections may project beyond the general line of fronts in any street or alley, subject to the restrictions therein set forth, yet such provisions are to be deemed to be permissive in such extent only, as any other law may not prohibit the subject matter thereof; and that the provision in Section 5 of the said Metropolitan Buildings Act, which requires that the provisions of that Act be observed, notwithstanding any thing contained to the contrary in any other Act of Parliament then in force, is to be deemed to apply to such provisions of the Metropolitan Buildings Act as are obligatory, and not to such as are permissive only."

Costs to be paid by the applicants.

ASPHALT FOR ROOF COVERING.

Mr. Manning proposed to form the roof covering of certain houses in the Fulham-road with slate joists "7 by 2," and inch deal boarding, covered externally with a coat or layer of "Claridge's asphalt."

The Buildings Act requires, that the external part of any roof "must be covered with slates, tiles, metal, glass, artificial stone, or cement;" which terms Mr. Moseley, the district surveyor, considered did not include asphalt. The award was, "that 'Claridge's asphalt' is not to be deemed an artificial stone or cement,

proper for the covering of any roof, flat, or gutter being of wood, and such material may not therefore be used in the manner described in the said requisition hereunto annexed."

DIVISION OF BUILDINGS.

Messrs. Winterbottom and Sands, being about to erect additional almshouses to the almshouses belonging to the Butcher's Charitable Institution, at Wallham Green, Fulham, were called on by the district surveyor to build proper party-walls to a height of 18 inches at the least, above the roof to which they should adjoin.

This they considered, would destroy the harmony and general effect of the building, the part already built being without such party-walls. They accordingly referred the question to the official referees, urging, "that the said building or buildings are not to be deemed to be separate buildings within the meaning of the said Act, but that they are to be deemed to be one building in the occupation of the trustees of the said institution, and that the inmates of the said almshouses are to be deemed to be lodgers under the said trustees."

The award was, "that the separate tenements forming the almshouses in question, are to be deemed to be houses in separate occupations within the meaning of the said Act, each tenement having a separate entrance and staircase, and as such, must be separated from one another by proper and sufficient party-walls, according to the provisions of the said Act for the rate at which such houses shall belong."

Costs to be paid by the applicants.

THE MANUFACTURE OF GLASS.

Sir,—I perceive by notices in the daily papers, that it is proposed to establish extensive works for the manufacture of coal gas. Is it not surprising, Sir, that in this age of improvement, the present imperfect mode of obtaining an illuminating gas should be still continued. Is it by the interest of coal proprietors, or do coal gas companies consider that the sale of coke is as profitable as the gas?

The mere extraction of gas from coal is simple enough, but a complicated machinery of condensers, purifiers, &c. is required to render it fit for consumption; and that this is ineffectually done, no practical man can for a moment dispute. Coal gas, as now manufactured, contains a quantity of sulphuretted hydrogen gas, and, should the whole of this be not extracted, produces, when burnt, the most injurious effects on the human constitution. The advantages, nevertheless, of gas are too apparent ever to permit us to doubt but what its use will continue general, both for illuminating and culinary purposes; and the time is not far distant when every room will have its burner, every kitchen its gas-cooking apparatus. How necessary, then, would it be to have a pure gas. That this gas can be had is sufficiently proved by the experiments of scientific men upon oil and tar; but from imperfections in the apparatus employed in procuring it, it has never been extensively brought into operation. Dr. Jones's "Address to Sir Robert Peel, requesting a legislative interference for the protection (both sanitary and pecuniary) of gas consumers," contains an exposé of many of the operations of coal gas companies, and should be read by every consumer. With many apologies for trespassing upon your time,

I am, Sir, &c.

OBSERVER.

Paddington, Nov. 18, 1845.

THE ADELPHI GALLERY. — Professor Keller and his corps of models are attracting large audiences. If we may use the word with reference to an exhibition where nothing is to be heard, "Pillrow's Atmospheric Railway" is previously explained, and with the microscope, laughing gas, lectures, and music, makes an agreeable, and not uninteresting, evening's amusement.

MELROSE ABBEY. — We are requested to say, that this fine ruin, Melrose Abbey, is again open to the public. In consequence of some injury done by indiscreet tourists, it was closed for a short time, as mentioned in THE BUILDER, but this was simply to enable the Duke of Buccleugh to make fresh arrangements for showing the building.

ON CERTAIN PROCESSES FOR STAINING GLASS.

THE *Bulletin de la Société d'Encouragement* contains an article on this subject by Professor Schubardt. We make the following extracts from a version of it that appears in the current number of Newton's *London Journal of Arts, &c.*

Mode of obtaining a Red Colour by means of Oxide of Copper. — The ancients were acquainted with the means of staining glass by the employment of oxide of copper; it is mentioned by Neri and Kunckel, in their works. The art was, however, so completely lost at the close of the last century, that it was generally believed that glass was always stained red by means of Cassius purple. It was not until 1828 that M. Engelhardt, of Zinsweiler, succeeded in staining glass red by means of a mixture of equal parts of oxide of copper and protoxide of tin: this process was tried with success in the glass manufactory at Hofnungsthal, Silesia.

The protoxide of tin is now done away with, and the compound employed is nearly the same as that mentioned by Neri, but more simple. It is composed of a mixture of copper scales (which are almost entirely composed of oxide) and oxide of tin (*zinnsäure*) obtained by the oxidation of that metal in a state of fusion in contact with the air, to which a small quantity of iron filings is sometimes added, when a scarlet tint is required to be produced. Should the colour by accident disappear, it may be brought out by again bringing the copper into the state of oxide; this is done by introducing into the vessel a small quantity of tiff or iron scale. It will of course be understood that the glass to be operated upon must not contain saltpetre, nor any other oxidizing substance.

Glass stained by means of oxide of copper is of a very deep colour, and can only be worked in thin sheets, and by covering it with a thick colourless glass (plate glass).

Obtaining a Red Colour by means of Gold. — The employment of gold for staining glass red does not appear to have been known to the ancients, and the period when it was first used, and by whom, cannot be ascertained. In the seventeenth century Kunckel employed Cassius purple for staining glass a ruby colour; this was discovered by A. Cassius a short time previous; but the recipe employed by Kunckel was not generally known until it was published in 1836, by M. Metzger, proprietor of the glass-works at Zschlig, on the occasion of M. Fuss's researches.

It must not be imagined from this, as some persons have lately stated, that it is necessary to use gold in the state of Cassius purple.

Neri, at the end of the 16th and commencement of the 17th century, stated, that in order to stain glass a ruby colour, it was only necessary to employ calcined chloride of gold. At a later period, Libar wrote to the same effect, and Merret certified that he had proved the efficacy of the process. In 1834, Gölcher Beyse stated, in the *Journal of Pharmacy*, that Douault Wieland coloured his paste with perchloride of gold only. Lastly, in 1836, Fuss writes, that in Bohemia all the ruby-coloured glass was prepared with chloride of gold only, and that glass might be stained red as well with metallic gold as with oxide of gold or Cassius purple.

It is therefore a fact known for some time, that glass may be stained red, without either Cassius purple or oxide of tin, with metallic gold or preparations of gold. In the glass-works of Bohemia and Silesia perchloride of gold only is used, without the addition of oxide of tin, in order to produce their fine rose or carmine-coloured glass.

If powdered gold be triturated with twenty times its weight of enamel frit, a light red or pink mass will be produced, without any metallic lustre.

It is evident that at the temperature of glass-houses, which is more than sufficiently high to effect the fusion of the glass, the gold contained in the Cassius purple will be brought back into the metallic state, whatever may be supposed to be the nature of this compound, upon which chemists have not yet agreed. If Cassius purple, chloride of gold, or gold leaf, be heated with borax or glass containing lead, to a temperature of 32° of Wedgwood's pyrometer, the gold will be precipitated in small globules at the bottom of the crucible, and if the heat be increased, the borax or glass will successively